

The Relative Frequency of Offensive and Defensive Gun Uses: Results From a National Survey

David Hemenway

Deborah Azrael

Harvard Injury Control Research Center

Some controversy exists about the relative frequency of criminal and self-defense gun use in the United States. Using data from a national random-digit-dial telephone survey of over 1900 adults conducted in 1996, we find that criminal gun use is far more common than self-defense gun use. This result is consistent with findings from other private surveys and the National Crime Victimization Surveys. In this survey, all reported cases of criminal gun use and many cases of self-defense gun use appear to be socially undesirable. There are many instances of gun use, often for intimidation, that are not reported to the police and may not appear in official crime statistics.

From a public health perspective, private ownership of firearms can have both detrimental and beneficial effects. For example, guns can be used to frighten, intimidate, and injure innocent victims (offensive gun use). They can also be used to prevent crime and protect against unlawful activity (defensive gun use).

The purpose of this article is to examine the relative frequency of offensive versus defensive gun use in the United States. A priori, it would seem logical to expect that in the U.S., where guns are easily obtainable, criminal gun uses would far outnumber self-defense gun uses by victims. After all, the criminal chooses the time and place of most robberies, assaults, and burglaries, and criminals are more likely to own and carry guns than potential victims. Surprisingly, however, one of the few criminologists to discuss the issue claims that "the best available evidence indicates that guns are used defensively by crime victims four to five times more often than they are used by offenders to commit crime" (Kleck 1997a, p. 295).

The claim is made by comparing results for offensive and defensive gun use from two very different types of survey. First, data on criminal gun use are taken from the large, semi-annual National Crime Victimization Survey (NCVS), the gold-standard for most U.S. victimization estimates. Then, these offensive gun use results are compared to self-defense gun use estimates from one-shot private surveys (Kleck, 1997b; Kleck & Gertz, 1995). Given their very different methodologies, however, this comparison between surveys seems inappropriate. It is far more appropriate to make comparisons of offensive and defensive gun uses from the same survey.

The article is organized as follows: First, we briefly describe and discuss the results from the one public survey that provides evidence about both offensive and defensive gun use, the large, longitudinal NCVS. Second, we present data from our own private survey, the first to ask detailed questions about both types of gun use. We then present the limited results from other private surveys that have asked questions about both types of gun use. Finally, we examine the societal benefits of offensive and defensive gun uses, and discuss some of the major implications of our findings.

The NCVS, conducted by the Census Bureau for the Bureau of Justice Statistics, asks questions of the same household every 6 months for 3 years. By excluding incidents reported in the first interview (i.e., by "bounding" the responses), the NCVS greatly reduces the substantial problem of "telescoping" (the reporting of events that actually occurred outside the time frame in question). In criminal victimization surveys, telescoping can increase estimates "by between 40% and 50% depending on the time of crime; the inflation rate is greatest for violent crimes" (Cantor, 1989; Skogan, 1990, p. 262).

The NCVS focuses on a half dozen specific serious crimes (e.g., assault, rape, robbery), and asks the respondent whether or not s/he has been the victim of an attempted or completed crime within the preceding 6 months. Follow-up questions ask whether the offender used a gun in the criminal attempt, as well as what, if anything, the respondent did to protect him/herself. Recent estimates from the NCVS suggest that each year there are about one million violent crimes involving guns (Kleck, 1997b; National Archive of Criminal Justice Data, 1998), while victims use guns in self-defense perhaps 60,000 to 120,000 times (McDowall & Wiersema, 1994; National Archive of Criminal Justice Data, 1998).

The NCVS estimates are not ideal. For example, the survey does not ask about all crimes, and it prompts respondents not by asking directly whether or not they used a gun in self-defense but only by asking "what did you do?" and "anything else?" However, the consistent order of magnitude difference between offensive and defensive gun use estimates from the NCVS on repeated annual surveys seems strong evidence that offensive gun use is far more common than defensive use.

Many private surveys have asked one or more questions about self-defense gun use (Kleck, 1997b). These estimates are an order-of-magnitude higher than the NCVS estimate. The two features of private surveys which seem to explain most of this difference are that

1. responses are unbounded and
2. all respondents are typically asked about defensive gun use, not just those respondents who report they have been the victim of an attempted crime. (Cook & Ludwig, 1998; Cook, Ludwig, & Hemenway, 1997; Hemenway, 1997a, b)

Indeed, these two features should also make private survey estimates of offensive gun use higher than the NCVS estimates.

Our survey is the first private survey to provide detailed information about both types of gun use and the results provide a supplement to NCVS comparisons. In addition, the descriptions of the offensive and defensive gun uses reported by respondents allow a crude qualitative comparison of the social desirability of these gun uses. We also discovered three other previously unreported private surveys that asked specific questions about both offensive and defensive gun use. Limitations in the questionnaires, however, make their results, at best, suggestive.

METHODS

Data come from a national random-digit-dial telephone survey conducted by Fact Finders, Inc. of Albany, New York, for the Harvard Injury Control Research Center under a grant from the National Institute of Justice. The survey was conducted in the spring of 1996. The sample comprises 1,905 adults, age 18 and older, living in the 50 states of the U.S. To increase the precision of the estimates, the sample was stratified by state. The number of interviews designated for each state was determined by that state's population relative to the total U.S. population. The 1990 Census was used to calculate the sample population.

The random-digit-dial technique is designed to ensure an equal probability of inclusion in the sample for all households with a single telephone line, including households with unlisted as well as listed numbers. Households without a telephone are excluded from the sample. Households with more than one telephone number have a higher likelihood of being included.

No more than one adult from each household was interviewed. As a result, an adult in a single adult household was more likely to be interviewed than an adult in a household with more than one adult. Rather than interview the adult who answered the phone or who happened to be home at the time of the call, the study was designed to select an adult from the household chosen at random. In practice, this meant alternately asking to speak with a man or with a woman living in the household. If there was no person living in the household of the requested gender, the initial respondent was interviewed.

Once a telephone number had been randomly selected for inclusion in the survey sample, as many as 10 repeat phone calls were made until a final disposition was assigned. Respondents were guaranteed anonymity, and no identifying information was collected. Of the households randomly selected for the survey, 27% refused to participate. Once the interview began, fewer than 2% did not complete the entire survey.

All respondents were asked: "In the past five years, have you used a gun in self-defense to protect yourself from a person or people?" Many additional questions followed a positive response, focusing on the most recent incident.

All respondents were also asked: "In the past five years, has anyone displayed or brought out a gun in a hostile manner, even if this event did not take place during the commission of a crime?" A positive response led to many further questions about the most recent incident, including: "Was the gun displayed during an unplanned argument or other interaction that was not part of the commission of a crime?" From the answer to these questions and the respondents' open-ended descriptions of the events, the most recent hostile gun display incidents were classified into two mutually exclusive categories: planned crimes and events in which there seemed to be less criminal planning involved. The latter category was further divided into three subcategories: "arguments," "unprovoked brandishings," and cases in which the respondent answered "Yes" when asked if those using a gun against him might have believed he was a criminal. Cases were eliminated in which the respondent appeared to be a witness to the gun display, but not one of its intended victims.

In order to obtain an unbiased assessment of the hostile and self-defense gun uses, summaries of respondents' descriptions of all self-defense gun uses and a random sample of hostile gun displays were presented in written form to three criminology students at the University at Albany (SUNY). The incidents were unlabeled as "hostile" or "self-defense" and were presented in random order. None of the individuals selected had written about gun issues or was known to have strong beliefs about gun control. They were asked to rate the social desirability of each event on a scale of -2 (least socially desirable) to +2 (most socially desirable), assuming the events took place exactly as described by the respondent.

RESULTS

Respondents were representative of the nation in terms of age and race. However, respondents in the survey were more likely to be female (58%) and less likely to be of very low income (Table 1).

Of the 1905 respondents to the survey, 23 reported a self-defense gun use in the past 5 years. Six of these respondents were police officers and 2 were in the military. One respondent reported the most recent incident as having occurred 6 years ago. These 9 respondents were excluded. That left 14 civilians who reported 54 total incidents of self-defense gun use in the past 5 years.

Of the 14 civilians (Table 2, Table3), 3 claimed a total of 40 self-defense gun incidents, while the remaining 11 claimed 14 total incidents. The survey asked details only about the most recent incident. Ten of the 14 incidents occurred away from home, 2 at home, and 2 respondents refused to provide any information about where the incident took place. Indeed,

TABLE 1. Descriptive Statistics

	Survey (%)	Nation (%) ¹
Gender		
Male	42	49
Female	58	51
Race		
White	82	83
Black	9	12 (includes all Hispanic as Black or White)
Hispanic	5	
Other	4	4
Age		
18-29	19	20
30-39	23	24
40-49	21	20
50-64	20	19
> 64	17	18
Income (\$1,000s)		
< 15	12	23
15-35	26	31
35-50	22	16
50-75	15	17
> 75	12	14
Missing	13	

TABLE 2. Self-Defense and Hostile Gun Use Incidents

	Number of Respondents	Number of Incidents
Self defense	14	54
Hostile gun display (total)	58	112
Planned crime	21	37
Argument	24	55
Unprovoked	13	21

these last 2 individuals, who between them reported a total of 35 self-defense gun use incidents over the past 5 years (or almost two-thirds of the total number of incidents), refused to provide any information at all about the event (Table 3).

One hundred and twenty-two (122) respondents reported a hostile gun display. Of these, 10 were police officers, 2 were security guards, 3 were in the military, 1 was a private investigator and 1 an arson investigator. In addition, 2 respondents indicated that the most recent gun display took place outside the U.S., and 1 that it took place 8 years ago. Three people provided insufficient information about the most recent event to adequately categorize it (between them, these 3 individuals reported 16 total hostile gun displays). Excluding these 25 individuals leaves 97, who reported 240 hostile gun displays.

Of the 97, the most recent event for 31 appeared to be witnessing a hostile gun display. These 31 respondents reported a total of 112 events (of which a single respondent, a paramedic, reported 50). For another 8 respondents, the most recent incident involved the police or a civilian displaying a gun against them in the belief that the respondent was a criminal. Eliminating these 39 respondents leaves 58 who reported 112 hostile gun displays.

For 21 of these 58 individuals, in the most recent incident the gun was displayed during a planned crime (Table 2, 4). These crimes were primarily either robberies by strangers, which often occurred at work (e.g., restaurants, convenience stores), or assaults by acquaintances, including ex-boyfriends. According to respondents, the police were almost always notified.

For 24 respondents, the most recent hostile gun display took place during an argument which escalated into gun use (Table 2, 5). These respondents reported a total of 55 hostile gun displays in the past 5 years. The majority (58%) of the most recent cases involved family or acquaintances.

Thirteen respondents reported an instance of what might be categorized as an unprovoked brandishing—the offender displayed a gun in a hostile manner against this particular respondent for no readily apparent reason (Table 2, 6). These respondents reported a total of 21 hostile gun displays. The vast majority (85%) of most recent cases was committed by strangers.

Virtually every gun use in the hostile gun displays was rated as highly socially undesirable (a rating of -2) by all three criminology students. By contrast, only 3 of the 12 self-defense gun uses were rated as socially desirable by even a majority of the raters. Self-defense incidents rated as the most socially undesirable by the raters were incidents in which arguments escalated into mutual gun use:

- An 18- to 29-year-old woman was coming out of track practice one night when “some people flashed a gun” at her during a “drug-related incident.” She reports using her gun in self-defense. No shots were fired and the incident was not reported to the police.
- An 18- to 29-year-old man was leaving a club with a friend when they were approached by a man who had been in an argument with the respondent’s friend earlier. The man pulled a gun on the respondent and his friend, in response to which they also pulled a gun. No shots were fired and the police were not notified.
- A 30- to 39-year-old man was sitting in the park with friends drinking when words were exchanged. According to the respondent, “everyone started running to their cars to get their guns and we got our guns too.” No shots were fired and the incident was not reported to the police.

TABLE 3. Most Recent Incident: Gun Self-Defense

Age	Sex	No. (5 years)	No. of Offenders/ Relationship to Respondent	Crime/Location	Respondent Attacked?	Offenders' Weapon	Police Notified?/ Arrest	Gun Loaded? Pre/Post-Event	Respondent's Gun
30-39 ¹	M	1	>1/employees	verbal assault/burglary of R's home	no	none	no/no	no/yes	handgun
30-39 ²	M	1	1/acquaintance	trespassing at R's home	no	none	no/no	no/no	shotgun
18-29 ³	F	2	>1/acquaintances	drug-related/school campus	no	handgun	no/no	no/no	handgun
18-29 ⁴	M	1	1/acquaintance	missing/outside car	no	handgun	yes/yes	yes/yes	shotgun
40-49 ⁵	M	1	>1/strangers	physical assault/at traffic light	yes	none	yes/yes	no/yes	handgun
30-39 ⁶	F	1	1/stranger	harassment/car	no	none	no/no	no/yes	handgun
65+ ⁷	M	5	>1/strangers	burglary/car	no	knife	yes/yes	yes/yes	handgun
30-39 ⁸	M	1	1/stranger	verbal assault/park	no	handgun	no/no	yes/yes	handgun
18-29 ⁹	M	1	>1/strangers	offender pulled gun/outside club	no	handgun	no/no	yes/yes	handgun
50-64 ¹⁰	F	2	>1/strangers	ambiguous/car	no	unknown	no/no	yes/yes	handgun
30-39 ¹¹	M	2	>1/employees	theft/crack house	no	none	no/no	no/yes	rifle
18-29 ¹²	M	1	1/acquaintance	not a crime/friend's house	no	handgun	no/no	yes/yes	handgun
40-49 ¹³	M	15	missing	missing	missing	missing	missing	missing	missing
missing ¹⁴	M	20	missing	missing	missing	missing	missing	yes/missing	missing

1. The respondent was "indoors in my living room at 10:30 PM. I was watching TV. I got harassing phone calls before they broke in about a young lady they know nothing about. They tried breaking (in) and I fired at one of them to miss."
2. The respondent was "in my house watching TV." The offender "broke into my yard and was looking in my windows." The respondent got his unloaded gun from his bedroom and ran after the offender.
3. The respondent came out of track practice where she had a confrontation with offenders at her car. The offenders flashed a gun.
4. The respondent was in a confrontation with a "so-called friend" on the street by his car. The offender "was going to shoot me—he put a gun in my face." The respondent shot the offender and was arrested.
5. The respondent was in his car on a deserted street. "They rear-ended me at a traffic light and from there tried to assault me." The respondent was hit by the offenders and required medical attention.
6. The respondent was in her car when a "bum came up to my window. He knocked on my car window and tried to open the door. I pulled out a gun, loaded it, showed it to him and he walked away."
7. The respondent was trying to get out of his car. "Three guys came up to me and said 'I want your money.' The guy had a big knife. I started to blow my horn. I pulled my gun out and they ran away."

8. The respondent was with friends at a park. "We were sitting and talking. Words were exchanged. Everyone started running to their cars to get their guns and we did too. We were drinking."
9. The respondent was "just leaving the club on my way home (trying to catch a cab). My friend was involved in an argument in the club. When we went outside to leave, the other person pulled a gun on us." The gun was in the respondent's friend's possession.
10. The respondent was alone in her car on the way home from shopping and had a loaded gun under her left leg. The respondent, who reports that she did not see the offenders, "let them see" she had a gun. The respondent reports that "nothing occurred that was necessary to report. It could have been perfectly innocent, but I was scared."
11. The respondent was in a "black neighborhood" at a crack house. "A couple of my employees had stolen my truck. I showed up at one of their houses and his brother-in-law told me where to go to find him, which was a crack house. I went there with my friend so I could confiscate our truck. I don't usually carry a gun on me but in this situation I wouldn't feel safe if I didn't." The respondent did not encounter the offenders.
12. The respondent was "inside a friend's house watching someone trip on LSD. He suddenly pulled a gun and the only way to calm him down was to take it from him. He went off the wall and thought he was in WWII and pulled a gun on me."
13. All information regarding the respondent's most recent self-defense use is missing.
14. The respondent reports an event in which he got an already loaded gun from where it was "hidden in a safe place." The respondent provided no other detail the incident.

TABLE 4. Most Recent Incident: Hostile Gun Display During a Planned Crime

Age	Sex	Number (5 years)	Type of Crime	Location	Respondent Relation to Offender	Have Gun?	Shots Fired?	Police Notified
18-29 ¹	M	6	planned assault	outside	acquaintance	no	no	yes
30-39 ²	F	2	planned assault	respondent's home	acquaintance	missing	missing	missing
18-29 ³	F	1	harassment	respondent's home	ex-boyfriend	no	no	no
30-39 ⁴	F	1	planned assault	respondent's home	ex-boyfriend	no	no	yes
30-39 ⁵	F	3	robbery	work (bar)	former employee	no	no	yes
50-64 ⁶	M	1	burglary	respondent's home	stranger	no	no	yes
18-29 ⁷	F	1	robbery	parking lot	stranger	no	no	yes
18-29 ⁸	M	2	robbery	work (store)	stranger	no	no	yes
18-29 ⁹	F	1	robbery	work (store)	stranger	no	no	yes
18-29 ¹⁰	F	2	robbery	work (restaurant)	stranger	no	no	yes
18-29 ¹¹	M	3	robbery	respondent's home	stranger	no	no	yes
30-39 ¹²	F	2	robbery	work (store)	stranger	missing	missing	missing
30-39 ¹³	F	1	robbery	restaurant	stranger	no	no	yes
30-39 ¹⁴	F	1	robbery	work (bank)	stranger	no	no	yes
30-39 ¹⁵	M	2	robbery	elevator	stranger	no	no	yes
30-39 ¹⁶	M	1	robbery	work (restaurant)	stranger	missing	missing	missing
40-49 ¹⁷	M	1	robbery	missing	stranger	no	no	yes
40-49 ¹⁸	M	1	robbery	outdoors	stranger	no	no	yes
40-49 ¹⁹	M	1	robbery	casino	stranger	no	no	no
40-49 ²⁰	M	3	robbery	work (restaurant)	stranger	yes	no	yes
50-64 ²¹	M	1	trespassing	work	stranger	missing	missing	missing

1. "This guy thought I owed him for drugs and he came to kill me. He came over and pulled the gun. I took it away from him. Several friends restrained him."
2. The respondent did not call the incident a crime, but described that the person who displayed the gun "had been threatening me . . . stalking me for several months because I wouldn't date him. On this particular occasion he came to my home and waved the gun around."
3. The respondent's "boyfriend was mad because I was seeing someone else. We broke up. Six months later he showed up at my house to talk. He showed me the gun to scare me into seeing him again."
4. The respondent's "ex-boyfriend called and said he was going to shoot me. I called the police and they chased him off."
5. A "disgruntled ex-employee" of the respondent's "came in and popped the gun at the bar because it wasn't busy and said he wanted all the money."

6. "My wife woke me up at 2:15 am because our dogs were barking. I went downstairs into our family room, and I was facing two men with sawed-off shotguns. They started to run toward me instead of away. They beat me within an inch of my life."
7. The respondent was next to her car. She provided no additional information about the incident.
8. The respondent was working the late shift when a man walked in and "asked for free food. When I told him 'no,' he became angry. His anger made me angry, so we exchanged heated words until he said that he had originally come in to rob me. That's when I told him to go ahead and take the money and that he could even shoot me (I was very upset) and then I walked out of the store. He followed me outside. A car pulled up to the store at the same time, so he turned and left."
9. The respondent was "standing behind the counter at the store I work in. He was 19 or 20. He pulled a gun and held it inside his coat. He flashed it at me and asked for all the money in the cash register. I gave it to him and hit the button under the counter that called the police. They showed up and I had been able to run outside and point to them which way he ran. They caught him."
10. The respondent was at work when the offenders "came in and pointed guns at us. They put us in a cooler. One guy held a gun at us while the other took the money."
11. The respondent was in an apartment building "coming off the elevator. There were three people in the hallway. All three pointed guns at me and robbed me. I gave them money and they ran down the stairs."
12. The respondent was working when one of four robbers pointed a gun at her face and took the store's money and cigarettes.
13. The respondent was dining in a restaurant when it was held up.
14. The respondent was at work as a bank teller when the bank was robbed.
15. The respondent was "visiting a friend. It was five PM I was going off the elevator. A man stepped off the elevator, turned and pulled out a gun and held up the elevator. There were about 10 people in it."
16. The respondent was waiting for food at a fast food restaurant when a "bum walked in and asked for money. Then he showed part of a gun. Others in the restaurant came to my aid."
17. The respondent provided no additional information about the incident.
18. The respondent was outside a local store when a "robber came up behind me. He had the gun pointed at my head. When people came the robber took off."
19. The respondent was in Nevada buying chips at the cashier's window of a casino. "I caught a glimpse of the guy's foot. He had the gun pointed at the back of my head and told me to get down. They took off with three quarters of a million dollars."
20. The respondent was at work. "The man put the gun to my side and demanded that I give him the money in my office. He placed the gun to my head and demanded the money in the safe. I told him 'there is no safe.' He made me open the drawers to my desk. He took money from the day before, then casually walked out."
21. The respondent owns a car wash. The respondent told the offender to stay away, but he "kept coming and trashing the grounds. He came back with a gun a half hour later. He pointed the .22 revolver in my face so I knocked him in his face and got the gun from him. He was caught by the police but only served 80-90 days."

TABLE 5. Most Recent Incident: Hostile Gun Display During an Argument

Age	Sex	Number (5 years)	Location	Other's Relation to Respondent	Respondent thought to be armed?	Description
18-29 ¹	M	2	work	acquaintance	don't know	argument
18-29 ²	M	1	outside other's home	acquaintance	no	argument
18-29 ³	M	1	home (whose unknown)	acquaintance	yes	argument
18-29 ⁴	M	2	outside	acquaintance	no	argument
18-29 ⁵	M	2	car	acquaintances	no	argument
18-29 ⁶	F	2	school hallway	acquaintances	no	argument
50-64 ⁷	M	1	other's home	brother-in-law	no	argument
30-39 ⁸	F	6	work	client	no	argument
50-64 ⁹	F	1	work	client's parent	no	argument
30-39 ¹⁰	F	1	respondent's home	ex-husband	no	argument
30-39 ¹¹	F	2	respondent's home	ex-husband	no	argument
40-49 ¹²	F	2	respondent's home	ex-husband	no	argument
30-39 ¹³	F	1	outside respondent's home	fiancee	yes	argument
30-39 ¹⁴	F	2	respondent's home	husband	no	argument
18-29 ¹⁵	M	2	outside a club	stranger	yes	argument
18-29 ¹⁶	M	1	other's home	stranger	no	argument
18-29 ¹⁷	M	15	parking lot	stranger	yes	argument
18-29 ¹⁸	M	2	outside	stranger	no	argument
18-29 ¹⁹	M	1	car	stranger	no	argument
18-29 ²⁰	M	2	car	stranger	yes	argument
30-39 ²¹	F	1	car	stranger	don't know	argument
30-39 ²²	M	2	outside other's home	stranger	no	argument
30-39 ²³	F	2	outside	stranger	don't know	argument
50-64 ²⁴	F	1	outside respondent's home	stranger	no	argument

1. No additional information was provided by the respondent.
2. The respondent was "visiting. I parked my motorcycle on the lawn which seemed to annoy my girlfriend's mother."
3. The respondent reported that he thought that the person who displayed the gun was afraid. He reported no additional information.
4. The respondent was "outside at a party. I was walking to my car. A guy was upset. He thought I was hitting on his girlfriend. He pulled out the gun . . . basically to give him the feeling of power. He was pretty drunk. I laughed and then I drove away."
5. The respondent was "in the car sitting in the passenger's seat. The car was not moving. A friend was in an argument, and the other guy pulled the gun out at me because I got out . . . to see what was going on. He asked 'Do you have a problem?' I said 'No' and he put it away."
6. The respondent "turned my back, and they pulled a gun out of their locker and stuck it in my back."
7. The incident took place in the basement of the person who displayed the gun. The respondent reported he displayed the gun "to make a point and be more aggressive during an argument about safety in having a gun in the house."
8. The respondent was at work at a mental health clinic. A patient "was having a psychotic episode. [He] was depressed . . . and off his medication. He was suicidal and wanted to kill himself in front of everybody. He didn't want to take his medication."
9. The respondent reported: "I work at a state developmental center with retarded individuals. . . . A parent that periodically got upset . . . disagreed with [us] and pulled a gun. She threatened the child because he was disobedient and threatened me because she thought we were turning the child against her. It was turned over to the District Attorney."

10. The respondent was arguing with her ex-husband. "He pulled a gun and he threatened to shoot me and my children. He fired the gun but didn't shoot anyone."
 11. The respondent was arguing with her ex-husband. He "grabbed the gun, but just waved it around. I didn't call the police. He was angry because we were splitting up. He was going to force me to love him."
 12. The respondent was "inside my living room late at night. I let my ex in, and he had a gun and pulled it on me. He was angry about the divorce."
 13. The respondent's fiancé displayed the gun during an argument with the respondent about her ex-husband.
 14. The respondent was in the kitchen "and my husband pulled a gun on me. He wanted me to be afraid and it worked. He was mad, always mad at me about something. He said he was going to kill me."
 15. The respondent was inside a club with a friend. The friend was in a "confrontation" with the person who displayed the gun. "We were leaving and then outside he pulled a gun on [us]. He showed it to me in a threatening manner. I wouldn't see it as a crime. It ended on its own. Words were exchanged and then everyone separated." The respondent thought that the person who displayed the gun may have thought that the respondent's friend had a gun.
 16. The respondent was at a friend's house. The person who displayed the gun "was angry and drunk."
 17. The respondent was in a parking lot in his home town. The respondent "was walking to the car and someone yelled at me and I yelled back. They didn't like the colors I was wearing and it sparked an argument."
 18. The respondent reported that "on the street about a block away from where I live, a kid pulled a 9mm pistol and threatened me because I asked to see his parents because his little brother was throwing rocks at my little brother."
 19. The person who displayed the gun "got upset because he thought I cut him off and began to throw objects at me. Then he pulled out the gun and waved it at me."
 20. The respondent reported "it happened because of an argument that went on earlier at a club, and when it closed they followed me, pulled up alongside my car and started waving a gun. I then pulled over to the side of the highway."
 21. The respondent was in the car with her 12-year-old daughter. The person who displayed the gun "was in the left lane and instead of tailing I had to go around him (he was riding in the left lane under the speed limit). I think he was a redneck with a girlfriend. I simply went around and got in front of him. He caught up and took a rifle from a gun rack in the back of his truck and pointed it at me in what I thought was a threatening way. I drove off. [He] thought he was a cocky S.O.B. and he would scare me and he was wrong."
 22. The respondent was at a party at a neighbor's house. "Four young boys, sixteen to seventeen years old, pulled up to the house in a car. They started insulting us verbally. They [were] looking for a fight. They got out of the car, still making insulting comments. At this point I confronted them and told them to leave the property. They displayed a gun, which was a semi-automatic. It looked like a .38. We settled it with words, and they drove away. I think the gun was a bluff. [They wanted] to give the impression that no one could mess with them."
 23. The respondent and a friend "were walking to my house and a guy across the street yelled something. My friend yelled back and he crossed the street and pulled a gun out from the front of his pants. He asked if she said something. She said 'no' and left."
 24. The respondent reported that "a truck was speeding up and down our road and was being really obnoxious. They also tore up our common area which is a plot of land only to be used by the 12 houses on the street. Total disregard for private property. We started yelling and they pulled out a gun."
-

TABLE 6. Most Recent Incident: Hostile Gun Display During an Unprovoked Incident

Age	Sex	Number (5 years)	Location	Other's Relation to Respondent	Respondent thought to be armed?	Description
50-64 ¹	F	2	respondent's house	husband	no	unprovoked
40-49 ²	F	1	work	acquaintance	no	unprovoked
18-29 ³	M	1	street	stranger	yes	unprovoked
18-29 ⁴	F	2	car	stranger	no	unprovoked
18-29 ⁵	M	1	outside other's home	stranger	no	unprovoked
18-29 ⁶	M	3	outside liquor store	stranger	no	unprovoked
30-39 ⁷	M	2	on road	stranger	don't know	unprovoked
30-39 ⁸	F	1	car	stranger	no	unprovoked
30-39 ⁹	M	1	car	stranger	no	unprovoked
40-49 ¹⁰	M	1	outside other's home	stranger	no	unprovoked
40-49 ¹¹	M	1	car	stranger	no	unprovoked
40-49 ¹²	M	missing	outside respondent's home	stranger	no	unprovoked
50-64 ¹³	F	4	parking lot	stranger	no	unprovoked

1. The respondent was lying in bed. Her husband "came home and turned on the light and picked up the gun and held it to my head and said: 'I should shoot your mother-f***ing head off.' Then he put down the gun and went into the kitchen. He came back a few minutes later and did it again. He's now my ex-husband. [He wanted] to scare the hell out of me or to kill me—I still don't know which."
2. The respondent was present during a "domestic dispute in a law office between a husband and wife. [He] pulled out the gun and was then pointing it at his wife and anyone that was there. [He wanted] to make a point, to extend hostility."
3. The respondent was at a festival. The person who displayed the gun "just had it on to show off. I was walking with friends. He pulled it out of his pants and waved it around, then he put it back in his pants and ran away."
4. The respondent was driving with her family and stopped at an intersection. "The individuals pulled alongside, pulled out a gun and pointed it at us, taunting us until the light changed. We followed to get their license plate number. We called the police and reported this to them."
5. The respondent was outside at a friend's house. The people who displayed a gun "shouted 'whitey go home!' They shot the gun at us and drove off. We went home."
6. The respondent exited a store when "these guys pulled a gun and pointed it at me. They were about 10 feet away. I said nothing, kept walking and hoped they didn't shoot. Then I just walked home fast."
7. The incident took place outside on a country road. The only other detail provided by the respondent was that he thought the person who displayed the gun was afraid.
8. The respondent was driving in her car. "I was pulling up to a stop light. I glanced over to the next car. Two young men pulled out a gun and pointed it at me. They continued to point it at me until the light changed and then they drove away laughing. The respondent thinks that they were "trying to shock people, for the thrill of it."
9. The respondent was driving at a vacation spot. "Some guy pulled aside me shouting obscenities, and he pulled the gun. He thought he was powerful. He wanted to show me how big a man he was."
10. The respondent "was out walking with my wife . . . down a sidewalk in a neighboring apartment complex. A teenager picked up a .22 and started pointing it at me and threatening to blow my head off. [He was] showing off."
11. The respondent was on the freeway when someone displayed a gun against him. "There are about five to six drive-by shootings a day. People are just driving by pointing guns. It happens all the time."

12. The respondent "was standing at my front door. They pulled up in a red truck on my lawn and pulled a girl out of the other side and beat her. I saw them and turned to go inside and call the police when he came over and put the gun in my face and threatened me not to call. He drove off. I called and nothing was done by the police."
 13. The respondent had "just walked to my car from K-Mart, and . . . this guy who was next to me in his car . . . was mouthing off . . . He was cussing at me, threatening me . . . and called me white bitch. He was messed up . . . I don't know if he was drunk or on drugs . . . obscene, really talking. He saw I was leaving and he pulled out his gun and said 'I'll just shoot you.' Then he drove off."
-

DISCUSSION

In our survey, after excluding police, security guards, and the military, offensive gun use against respondents was far more common than self-defense gun use. The number of respondents reporting that they were gun victims exceeded the number of respondents claiming to have used a gun in self-defense by more than 4 to 1 (58 to 14). Using a binomial test of a difference in proportions, this difference is statistically significant ($p < .001$).

We emphasize the number of respondents rather than the total number of incidents reported by these respondents because a few individuals report so many uses, particularly self-defense uses; in our survey, 3 people account for 74% of the total number of self-defense incidents, and the 2 respondents who provided no information about the incidents account for 64%. We are concerned about whether the numbers they report are accurate, and whether so many incidents might indicate criminal rather than self-defense gun use.

The 4 to 1 ratio of gun victims to individuals who used a gun in self-defense is a conservative one. The denominator includes every civilian who claimed a self-defense gun use in the past 5 years, despite the fact that—for some events—reasonable observers might not classify the incident as an actual self-defense use (e.g., it was sometimes unclear whether the respondent had actually been threatened). By contrast, no individual who reported a hostile gun display is included in the numerator unless the description of the most recent event made it clear that a gun had been used in a threatening and criminal manner against the respondent personally (e.g., uses when respondent thought she might have been considered a criminal by the gun user have been excluded).

Put another way, applying a definition of "genuine self-defense gun use" used by several researchers (i.e., the incident involved actual contact with a person; Cook & Ludwig, 1997; Kleck & Gertz, 1995), the events reported by respondents 11-14 (Table 3) should not be included in the estimates. Eliminating these 4 individuals leaves 10 civilians, who reported a total of 16 self-defense gun uses. Using this definition, the ratio of respondents reporting hostile gun displays to respondents reporting a self-defense gun use is almost 6 to 1, and the ratio of the number of incidents reported is 7 to 1 (114 to 16).

We searched the Roper Center and other survey databases, and discovered 3 other private surveys which asked about both offensive and defensive gun use in a single survey. All 3 surveys tend to support our finding that hostile gun uses are substantially more common than self-defense gun uses.

In the first survey, a 1997 national random-digit-dial telephone survey of adults conducted by the ICR Survey Research Group for the Hearst Newspapers (ICR Survey Research Group, 1997), over 2,000 individuals were asked, "Have you ever been a victim of a crime?"

The 731 who responded in the affirmative were then asked, "Did the crime involve a firearm?" and 158 said yes. The entire sample was also asked, "Have you ever used a gun in self-defense?" One hundred and four (104) respondents answered in the affirmative, for a hostile to self-defense gun use ratio of 1.5:1 (158/104). Thirty-two (32) respondents answered yes to both the criminal and self-defense gun use question.

In the second survey, conducted in 1992 (Los Angeles Times, 1992), the Los Angeles Times polled 2,600 adults concerning guns. The sample included 878 gun owners and 1,741 nongun owners. One question asked, "In the last two years, in Southern California, have you personally been the victim of a crime or an act of violence that involved a firearm, or not?" Six (6) percent, or 146 respondents, answered in the affirmative. All respondents were also asked, "Other than when you might have been in the military or working for a law enforcement agency, have you ever used a gun for self-defense, or not?" Three percent, or 80 respondents, answered in the affirmative, for a hostile to self-defense gun use ratio of 1.8:1 (146/80).

Finally, the third survey, a 1991 national random-digit-dial telephone survey of the adult population by the Gallup Organization (Gallup, 1991), asked gun-related questions of more than 1,000 individuals. A subsample of 210 handgun owners were asked "Has a handgun ever been used to threaten you in a robbery, mugging, or some other situation?" Sixteen percent (16%) said yes. Handgun owners were also asked, "Have you ever used your handgun to defend yourself, your home, or family or possessions, either by firing it or threatening to fire it?" Eight per cent (8%) said yes, yielding a 2:1 ratio of hostile to self-defense gun uses in this population.

Clearly, many problems exist with the questions in all three surveys (e.g., inconsistent screeners, inconsistent time frames, etc.), which could lead to over- or underestimates of both type of gun uses. It is noteworthy, however, that in all the surveys we have identified, which ask about both offensive and defensive gun use (these 3, the NCVS and our survey), more respondents report having had a gun used against them than report having used a gun in self-defense.

Our survey findings have various limitations. Our results are based on a single survey of fewer than 1900 "civilians." The survey undersampled males and poor people, both of whom may have more hostile conflicts involving firearms. The questions on offensive and defensive gun use were not completely symmetric, since the former asked about "hostile gun displays" rather than "uses." However, all described incidents which did not appear to be criminal gun use against the respondent were eliminated (e.g., events which were witnessed by the respondent). Compared to the 6 other comparable surveys which asked about self-defense gun use in the past 5 years while excluding defense against animals and defensive use by police and the military, our defensive gun use results are well below 4, while in line with 2 [a 1994 CDC-sponsored survey of 800 gun owners and 400 nonowners (Hemenway & Azrael, 1997) and the 1994 Tarrance survey in which 1% of respondents reported a defensive gun use (see Kleck, 1997b)].

There are problems with using data based on self-reports, particularly of rare events with potential for self-presentation bias (Hemenway, 1997a, b; Cook, Ludwig, & Hemenway, 1997). Yet even accepting the responses at face value, there is the question of how some events should be classified, particularly some of the reported self-defense gun uses. It is also not clear how incidents should be counted when multiple parties are involved. Our comparisons effectively assume that there was one offender and defender in each case.

Determining the social benefits and costs of any gun use will always be somewhat subjective, and our survey presents only limited information about the event from which to judge. Moreover, all of the reported incidents are a one-sided version of a hostile interaction that usually occurred many months or years before the survey.

Nonetheless, raters were unanimous in describing the hostile gun uses reported by respondents as highly socially undesirable. By contrast, only 3 of the 12 self-defense gun uses were rated as socially desirable by even 2 of the 3 raters, suggesting that a simple comparison of numbers of events may be an inadequate means of measuring the social costs and benefits of gun use. While the raters did not describe why they rated the incidents as they did, the self-defense gun uses they rated as least socially desirable appear to be little more than gun use as part of an escalating argument. One suspects that, were the story told from the other combatant's perspective, s/he would seem to have been the one who was assaulted and forced to act in self-defense.

The U.S. has many private guns, and they are often used against humans. Civilians use guns far more often to kill and wound innocent victims than to kill or wound criminals, particularly at home (Kellermann & Reay, 1986; Kellermann, Rivara et al., 1993; Kellermann, Somes et al., 1998). Our study provides evidence that guns are also used far more often to intimidate and threaten than they are used to thwart crimes.

Our results suggest that there are many uses of guns against humans that do not make official statistics, such as crime reports, emergency room logs, or death certificates. When determining the benefits and costs of various measures to increase or reduce the availability of and access to guns it is important to consider the effect not only on reported crime, suicide and accidental injury, but also on these more hidden gun uses.

REFERENCES

- Cantor, D. (1989). Substantive implications of longitudinal design features, the National Crime Victimization Survey as a case study. In D. Kasprzyk, Kalton, G., Duncan, G., Singh, M. P. (Eds.), *Panel surveys*. New York, NY: John Wiley & Sons.
- Cook, P. J., & Ludwig J. (1997). *Guns in America*. National Institute of Justice Report.
- Cook, P. J., Ludwig J., & Hemenway D. (1997). The gun debate's new mythical number, HOW many defensive uses per year? *Journal of Policy Analysis and Management*, 16, 463-469.
- Cooke, P. J., Ludwig, J. (1998). Defensive gun uses: New evidence from a National survey, *Journal of Quantitative Criminology*, 14: 111-131.
- Hemenway, D. (1997a). Survey research and self-defense gun use, An explanation of extreme overestimates. *Journal of Criminal Law and Criminology*, 87, 1430-1445.
- Hemenway D. (1997b). The myth of millions of annual self-defense gun uses, a case study of survey overestimates of rare events. *Chance*, 10, 6-10.
- Hemenway D., & Azrael, D. (1997). *Gun use in the United States, results of a national survey*. Report to the National Institute of Justice. Washington, DC: National Institute of Justice.
- Kellermann, A. L., & Reay, D. T. (1986). Protection or peril? An analysis of firearm-related deaths in the home. *New England Journal of Medicine*, 314, 1557-1560.
- Kellermann, A. L., Rivara, F. P., Rushforth, N. B., Banton, J. G., Redy, D. T., Francisco, J. T., Locci, A. B., Prodzinski, J., and Hackman, B. B., Somes, G. (1993). Gun ownership as a risk factor for homicide in the home. *New England Journal of Medicine*, 329, 1084-1091.
- Kellermann, A. L., Somes, G., Rivara, P., Lee, R. K., & Banton, J. G. (1998). Injuries and deaths due firearms in the home. *Journal of Trauma*, 45, 263-267.
- Kleck, G. (1997a). Struggling against 'common sense,' The pluses and minuses of gun control. *The World and I*, 287-299.

- Kleck, G. (1997b). *Targeting guns, firearms and their control*. New York: Aldine de Gruyter.
- Kleck, G., & Gertz, M. (1998). Carrying guns for protection. Results from the National Self-Defense Survey. *Journal of Research in Crime and Delinquency*, 35(2), 193-224.
- Kleck, G., & Gertz, M. (1997). The illegitimacy of one-sided speculation. Getting the defensive gun use estimate down. *Journal of Criminal Law and Criminology*, 87, 1446-1461.
- Kleck, G., & Gertz, M. (1995). Armed resistance to crime, The prevalence and nature of self-defense with a gun. *Journal of Criminal Law and Criminology*, 86, 150-187.
- McDowall, D. B., & Wiersema, D. (1994). The incidence of civilian defensive firearm use by U.S. crime victims. *American Journal of Public Health*, 84, 1982-1985.
- National Archive of Criminal Justice Data. (1998). *National crime victimization survey, 1986-1991, 1992-1995* (On-line). Available: www.icpsr.umich.edu/80/NACJD.
- Skogan, W. (1990). The national crime survey redesign. *Public Opinion Quarterly*, 54, 256-272.

Acknowledgments. The survey was funded by a grant from the National Institute of Justice to the Harvard Injury Control Research Center. The authors received additional research support from the Centers for Disease Control and Prevention, the Robert Wood Johnson Foundation and the Soros Foundation's Center for Crime, Communities and Culture (David Hemenway) and the National Institute of Justice (Deborah Azrael). Thanks to Judy Chen for her help in assembling and managing the survey data.

Offprints. Requests for offprints should be directed to David Hemenway, PhD, Department of Health Policy and Management, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115.